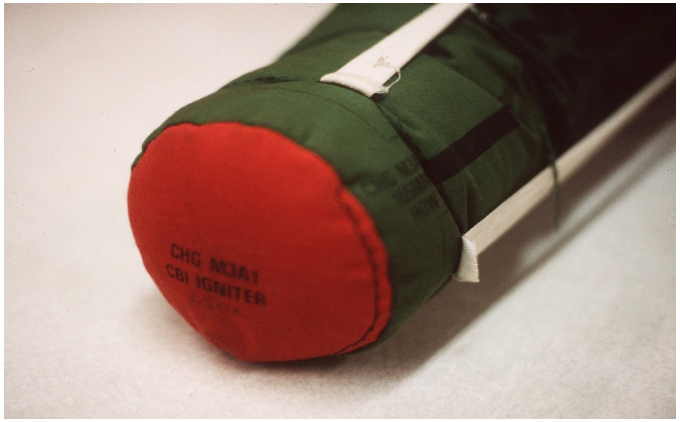
CARE AND HANDLING OF AMMUNITION



AGENDA

- CARE AND HANDLING OF AMMUNITION
- PROJECTILES- FUZES-
- PROPELLING CHARGES
- PRIMERS
- SEGREGATION OF AMMUNITION BY LOT
- STORAGE
- SUMMARY
- QUESTIONS

PURPOSE

To teach the proper care, handling, and storage of Field Artillery Ammunition

REFERENCE

- **TM 43-0001-28**
- **TM 9-1300-206**
- **FM 6-50**
- **http//155.217.58/58/**
- **http://www.adtdl.army.mil/rtddltextv**

CARE AND HANDLING OF AMMUNITION

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If ammunition is to function properly, it must be handled properly.
Some of the basic principles of proper handling are listed below.

(1) Never tumble, drag, throw, or drop individual projectiles boxes of projectiles.

(2) Do not allow smoking, open flames, or other fire hazards around ammunition storage areas.

(3) Keep the ammunition dry and cool.

CARE AND HANDLING OF AMMUNITION

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(4) Inspect each round before it is loaded for firing. Dirty
ammunition can damage the weapon, cause the breech not to close,
or affect the accuracy of the round.

(5) Never make unauthorized alterations or mix components of one
lot with another

(6) If a round has been rammed and then must be extracted, return it
to the battalion ammunition section. The rotating band or the fuze

CARE AND HANDLING OF AMMUNITION

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Use safety hand tools of nonsparking or spark resistant material such as bronze, lead, beryllium alloys, or wood.

Under normal conditions of use, such tools will not produce sparks.

PROJECTILES

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a. Projectiles must be inspected to ensure the foll conditions:

(1) There is no leakage of the contents.

(2) The projectile is correctly assembled.

(3) The rotating band is in proper condition. If the rotat is stained or discolored, that minor deficiency can be re fine sandpaper or steel wool. Projectiles with rotating b have minor dents or cuts can be fired.

PROJECTILES

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4. However, if dents or cuts go through the band, the ro
rejected by the using unit. The grommets must be secu
tight to prevent nicks and scarring of the rotating band
obturation band.

5. Most HE projectiles issued for use with proximity VT
standard projectiles with deep fuze cavities to accomm
longer VT fuze. Each of these projectiles is issued with
removable supplementary charge so that the projectile
used with an impact, a mechanical time or a long intrus
(VT) fuze.

PROJECTILES

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6. The supplementary charge is removed only when the projectile is
used with a long intrusion VT fuze. It must be in place when the
projectile is used with a mechanical time fuze, impact fuze, or short
intrusion VT fuze.

CAUTION

Do not try to remove the supplementary charge by any means
other than the lifting loop. If the charge cannot be removed by
the lifting loop, the round may be disposed of or fired with an
impact or an MTSQ fuze. The deep cavity may be lined with
a paper tube and bottom cup, which help support the

PROJECTILES

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7. Because of their contents, the WP shells require spec
handling and storage.

If possible, these shells should be stored away from o
types of ammunition and downwind of the battery

PROJECTILES

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White phosphorus. *WP rounds (except for the M825 a*
M825A1) should be stored upright on their base at all t
filler of these rounds will melt at a temperature of 111.4
result, the filler shifts and the ballistic characteristics of
change. The WP shell should be in an area free of any c
materials and away from other ammunition if possible.
applies to the M825 projectiles.)

FUZES

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a.The specific fuzes available for each weapon are discu
the technical manual for the weapon.

b. Fuzes are sensitive to shock and must be handled wit

c. Before fuzing a round, inspect the threads of the fuze
fuze well for cleanliness and serviceability.

d. The fuze should be screwed into the fuze well slowly
flush with the nose of the projectile. Using the M16 or M
fuze wrench (as appropriate), back the fuze up one-quar
turn, then snap the fuze wrench back to secure the fuze

FUZES

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e. After tightening the fuze, ensure that there is no gap
the nose of the projectile and the fuze. If a gap exists, r
the fuze from the projectile and segregate both from th
ammunition. Premature detonation may occur if a fuze
properly seated.

f. A projectile fuzed with a time fuze should not be lifte
hand around the fuze. A slip of the hand might change
setting.

FUZES

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g. Normally, fuzes containing superquick elements shoul
used during rainstorms or hailstorms. They may detonat
struck by rain or hail. However, a new rain insensitive fu
M739A1, has been developed and is available to be fired
storms with reduced possibility of premature functioning

**<u>Note</u>: Units must be aware of the ammunition restr
apply to their caliber of weapons. Restrictions are i
technical manual for the weapon.**

FUZES

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h. To prevent the accidental functioning of the point-det
elements of fuzes M564 and M548, the fuzes must not b
dropped, rolled, or struck under any circumstances. Spe
care must be taken to ensure that a fuzed round does n
the breech of a weapon during loading.

i Any mechanical time fuze that is set and not fired mus
reset to SAFE; and the safety wires (if applicable) must
replaced before the fuze is repacked in the original cart

**<u>Note:</u> Never fire a projectile without a fuze or with
is not authorized for that projectile.**

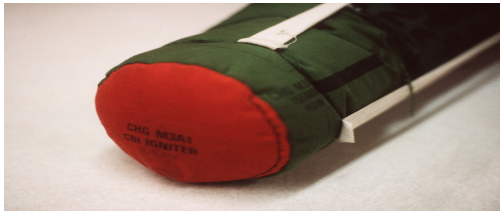
PROPELLING CHARGES

(1 of 3)

a.Procedures for preparing and verifying propelling cha
are published in respective weapon technica ls.
These procedures are safe, simple, and easy .

CAUTION

When firing multiple-round missions, the possibility of fi
incorrect charge is greater than when firing single-roun
because of increased tempo and because sections are r
allowed to fire multiple-round missions during training.
in the weapon technical manual always must be used.



PROPELLING CHARGES

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b. Propelling charges, or powder, like other components
ammunition, must be kept cool and dry. Powder containe
must be closed tight to keep moisture out.

c. Propellant bags must be firm, clean, and well laced or
and the increments must be inserted in the proper seque

d. Propellant must be inspected before the charge is pre
The following are examples of things to check:

e.Missing increments, extra increments and/or incorrect
(order) of increments.

PROPELLING CHARGES

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- Increment bags. Bags must not be damaged to the exte
powder or propellant spills out.

- Rotting (chemical odor).

- The red igniter pad on the base of the base charge (15
propelling charges)

PRIMERS

(1 of 2)

A. Primers are sensitive to both shock and moisture. Pri
separate-loading ammunition should be kept away from
propellant bags and left in their sealed containers until

**<u>Note:</u> Older series propellants may contain the MI
This primer is not authorized to be fired with any l
currently in use. Ensure that these primers are no
are turned in to the ammunition section.**

b. Primers for semifixed ammunition are attached to the
cartridge case. The best way to protect them is to leave
covered with a fiber container cap until needed.

PRIMERS

(1 of 2)

c. Before use, inspect all primers for signs of corrosion. I
been broken, it is very likely that the primer has been
moisture and should be turned in.

SEGREGATION OF AMMUNITION LOTS

a. Different lots of propellant burn at different rates and different effects in the target area. For this reason, the registration corrections derived from one lot do not nec apply to another lot. Ammunition must be segregated by

b. The FDC designates the lot of ammunition to be fired mission (or it is standardized). Therefore, the lot desig be prominently displayed for each stack of ammunition.

c. Whether stored in the field, on vehicles, or at an amm supply point (ASP), different lots of ammunition must b conspicuously marked.

AMMUNITION STORAGE

The four greatest hazards to ammunition in the battery a
weather, enemy fire, improper handling, and careless sm

Regardless of the method of storage, these hazards must
considered. Specific storage techniques are discussed lat
here are some general considerations:

(1) Stack ammunition by type, lot number, and weight

AMMUNITION DUNNAGE

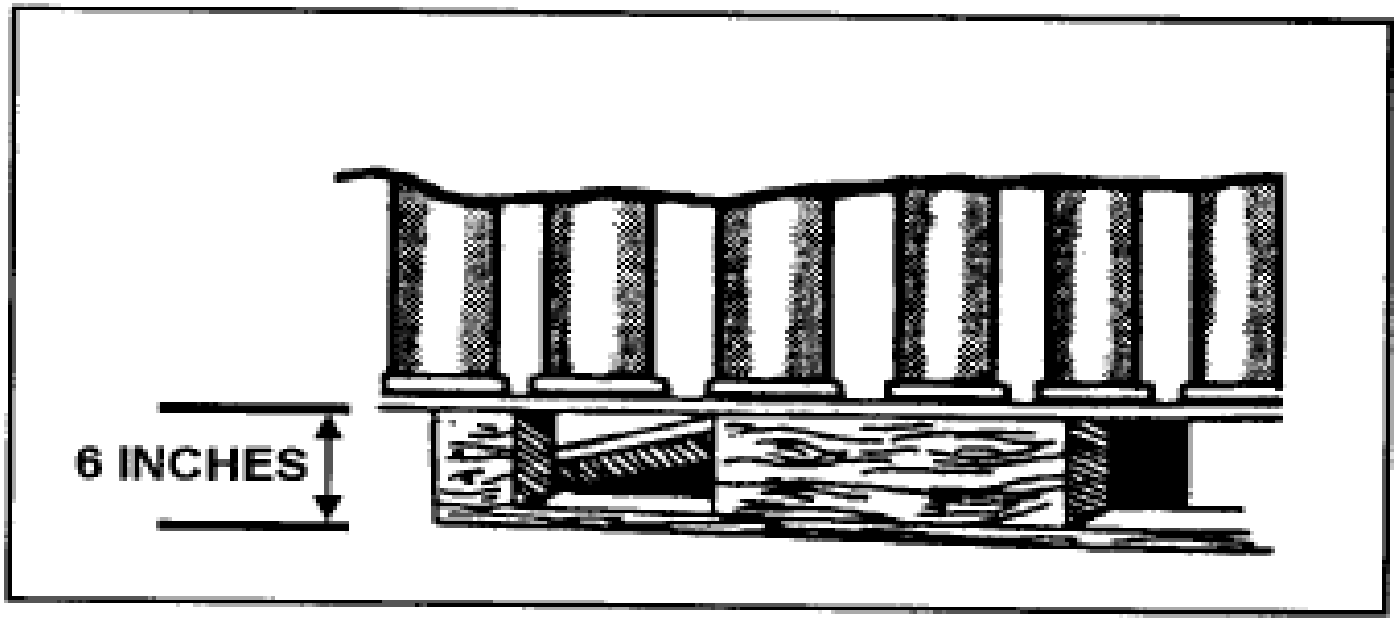

Figure 10-7. **Ammunition dunnage**

(2) If ammunition is being stored on the ground, use go
dunnage at least 6 inches high under each stack

AMMUNITION PROTECTION

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(4) Provide ammunition, if off-loaded, as much protection
enemy indirect fires as time and available materials allow
sandbags are used for protection, keep the walls at least
from the stacks and the roof at least 18 inches from the
ensure proper ventilation.

<u>Note:</u> Cannon sections must be careful not to fire t
thermometer.

AMMUNITION PROTECTION

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a. Particular attention must be paid to amm
temperature. Most ammunition componen
stored at temperatures as low as -80° F fo
of not more than 3 days and as high as +1
periods of not more than 4 hours per day.

AMMUNITION PROTECTION

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Powder temperature affects the muzzle ve

a fired round and is a matter of frequent c

the FDC. At least two howitzer sections sh

designated to keep track of the powder

temperature.

AMMUNITION PROTECTION

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A powder thermometer is inserted into th

powder increment in the canister, and car

be taken to ensure the thermometer does

touch

SUMMARY

CARE AND HANDLING OF AMMUNITIO
PROJECTILES

FUZES

PROPELLING CHARGES

PRIMERS

SEGREGATION OF AMMUNITION BY LO
AMMUNITION STORAGE
AMMUNITION DUNNAGE
AMMUNITION COVER

QUESTIONS